A LIST OF THE INDIGENOUS PLANTS OF THE MUDGEE DISTRICT.

BY ALEXANDER G. HAMILTON.

In my list of the Orchideæ of this district (Proc. Linn. Soc. of N.S.W., Vol. I., 2nd Ser. 1886, p. 865), I promised at some future time to furnish a list of the phænogamous plants and the ferns. That promise I now fulfil in the hope that it may be of some use in the elucidation of the question of the geographical distribution of species.

The remarks that applied to the distribution of orchids in this district, apply equally to the other families — The sandstone found on the Dividing Range supports the plants that are typical of the sandstone elsewhere. But there is, among the remaining families a greater proportion of species differing from the coast forms than is found among the orchids. These differing forms however, appear to be representatives of the coast plants.

In one or two sheltered spots there are many species not occurring elsewhere about Mudgee. For example, in a deep gully at Mullamuddy are found Pittosporum undulatum, Eucalyptus globulus, Nicotiana suaveolens, Sambucus xanthocarpa, Sturmia reflexa, Dendrobium speciosum, and Pteris aquilina, none of which occur generally over the district, although the last three grow at Cooyal, on the Dividing Range. Some other plants, rare elsewhere, are common in this ravine.

Regarding the occurrence of *Eucalyptus globulus* so far from its head quarters, I am of opinion that it is a survival from a cooler and moister climate. The trees—about a dozen and some saplings—grow only in a deep rocky glen surrounded on three sides by precipitous walls of igneous rock. Possibly at one time the tree was common all over the surrounding country, and, as the climate changed, it gradually died off, leaving only a few survivors in the most sheltered situations. In support of this view, I may mention that I have since seen specimens of the tree from the Meroo, procured in a deep gully there, but higher and more southward than Mudgee.

Mullamuddy, where Mr. J. D. Cox and myself discovered it, is over 2,000 feet above sea level. The only other locality in New South Wales where it has been collected is Araluen, which is about 230 miles south from Mudgee as the crow flies. There, the Rev. R. Collie tells me, it grows, not in a deep shady gully, but on the top of a hill. This may be accounted for by the more southern latitude, and the nearer approach to the sea moderating the climate sufficiently to allow it to exist in a more exposed situation. As far as I know it has not been collected between Mudgee and Araluen, or between the latter place and its Victorian habitat, but should it be discovered in either gap, it would, I think, be strong evidence in favor of the survival theory. Mr. J. D. Cox agrees with me in this view, and in thinking it improbable that the This might be inferred trees have come from bird-carried seeds. from there being trees 60 feet or more high and 2 feet in diameter, side by side with younger trees and saplings. Another circumstance at variance with the supposition of bird-carried seeds, is the occurrence of the above-named plants in this limited spot, and the fact that the insects differ from those of the district in general.

I particularly noticed a large *Pieris* with brilliant underwings feeding on the blossoms of the *Pittosporum*. This insect I had previously seen about Sydney frequenting the same species of tree, and also orange trees.

Roughly speaking, the district I have collected over might be described as extending from Appletree Flat to Reedy Creek, and from the Dividing Range at Cooyal to the top of the Ridge separating the Meroo Creek from the Valley of the Cudgegong River. The average height of the district might, I think, be fairly taken as that of the Mudgee Railway Station, which is 1,635 feet above sea level. The highest point within these limits is probably Buckaroo or Big Hill, (from which the Mullamuddy Gully runs), which as measured by Mr. Cox is 1,640 feet above river bed—probably 3,000 feet above the sea. The geological formation is principally Silurian, with occasional patches of granite, as near Home Rule, limestone (at Canadian and Mt. Frome), and basaltic outflows. The coal measures extend down the valley of Reedy Creek from Cooyal; and at Guntawang a shale with Glossopteris and other fern impressions occurs at a small depth below the surface. The shale also extends to Beaudesert. The district is well-known as being highly auriferous.

The annual mean temperature is 61.8° F.; the mean for three summer months (Decem., Jan. and Feb.) is 72.7° F.; winter mean (June, July and August) 49.5° F. In 1886 the highest observed temperature was 103.6° F. in February, and the lowest 21.6° F. in July. (1.) The average rainfall is 25.24 inches, September being usually the wettest month. The six years ending 1885 were below the average, but 1886 was 9.26 inches above, and 1887 promises to be a very wet year, 31.81 inches having fallen up to March 31.

A few of the plants named in the following pages I have not collected myself, but their names were supplied to me by Dr.

 Jan. 74·1° F.
 April, 65·7° F.
 July, 47·4° F.
 Oct. 56·4° F.

 Feb. 74·3
 May, 58·9
 Aug. 48·8
 Nov. 67·2

 Mar. 71·6
 June, 52·3
 Sept. 55·1
 Dec. 69·8.

⁽¹⁾ The above extremes of temperature would give a rather incorrect impression of the Mudgee climate, but a consideration of the following means for each month (kindly supplied by Mr. Lenehan, Acting Government Astronomer), will show its equability:—

Woolls, to whose untiring kindness I owe a great deal of help in this and other botanical matters. I am indebted to Mr. Percy Williams for a note on the occurrence of *Styphelia viridis* at Cooyal.

In collecting towards the west and north-west—towards Cobbora for instance—a slight change is noticeable in the character of the vegetation, showing an approximation to the flora of the plains; but it is not at all marked till Cobbora is passed, which is far beyond the limits of the Mudgee district. Eastward from Mudgee the change to the sandstone vegetation is very sudden, the ordinary forms occurring right up to the foot of the Dividing Range.

The remarks I made on the gradual extinction of some species of orchids apply with equal force to the plants in this list, cultivation, clearing, and the influx of introduced plants being the principal factors concerned in their disappearance. The last is very noticeable in land ringbarked or cleared, the sudden appearance and growth of aliens being then very marked. Drought is not so potent an agent as might be thought. About six years ago I collected Euphrasia scabra in a cleared paddock near my own residence. As it was so near, I neglected to preserve specimens, and during the five dry years which followed, not one plant was to be found. The moist summer of 1886 however, brought it up again in the same limited locality, so that the seeds must have existed with unimpaired vitality through five years' droughts, during which the paddock was more than once burnt. remark also applies to Centrolepis fascicularis, which sprang up after the same long interval in that locality.

It will be seen that I have included the orchids in this list although I have already given a paper on the subject. But I thought it would be better not to break the regular sequence of the orders by leaving them out.

I hope soon to give a list of the introduced plants of the district.

The nomenclature and arrangement adopted is that of the Systematic Census of Australian Plants by Baron F. v. Mueller.

After the specific names, habitat, and period, month or season of flowering, the figures which follow are meant to indicate where the plant is found elsewhere besides the District of Mudgee, 1.—N.S.W. 2.—V. and N.S.W. 3.—N.S.W. and Q. 4.—V., N.S.W., and Q. 5.—T., V., N.S.W. and Q. 6.—S.A., T., V., N.S.W., and Q. 7.—N.S.W., Q., and N.A. 8.—S.A., V., N.S.W., and Q. 9.—W.A., S.A., T., V., N.S.W., and Q. 10.— W.A., S.A., T., V., N.S.W., Q., and N.A. 11.-T., V., and N.S.W. 12.—W.A., S.A., and N.S.W. 13.—W.A., S.A., V., N.S.W., Q., and N.A. 14.—S.A., N.S.W., Q., and N.A. 15.— W.A., S.A., V., N.S.W., and Q. 16.—S.A. and N.S.W. 17.— S.A., V., N.S.W., Q., and N.A. 18.—T. and N.S.W. 19.—S.A., V., and N.S.W. 20.—S.A., T., V., N.S.W., Q., and N.A. 21.— W.A., S.A., N.S.W., Q., and N.A. 22.—S.A., N.S.W., and Q. 23.—V., N.S.W., Q., and N.A. 24.—T., V., N.S.W., Q., and N.A. 25.—S.A, T., V., and N.S.W. 26.—W.A., S.A., T., V., and N.S.W. 27.—W.A., S.A., V., and N.S.W. 28.—W.A., S.A., V., N.S.W., and N.A. 29.—W.A., V., N.S.W., and Q. 30.— W. A. and N.S. W. 31.—W. A., N.S. W., and Q. 32.—W. A., V., N.S.W., Q., and N.A. 33.—W.A., S.A., T., and N.S.W.

DICOTYLEDONEÆ.

CHORIPETALEÆ HYPOGYNÆ.

1.	RANUNCULACEÆ.
2.	DILLENIACEÆ.
3.	Lauraceæ.
4.	Papaveraceæ.
5.	CRUCIFERÆ.
6.	VIOLACEÆ.
7.	PITTOSPOREÆ.
8.	Droseraceæ.
9.	ELATINEÆ.
10.	Hypericinæ.
11.	Polygaleæ.
12.	Rutaceæ.

13. ZYGOPHYLLEÆ.

14. Lineæ.

15. Geraniaceæ.
16. Malvaceæ.
17. Sterculiaceæ.
18. Euphorbiaceæ.
19. Urticaceæ.
20. Casuarineæ.
21. Sapindaceæ.
22. Stackhousieæ.
23. Portulaceæ.
24. Caryophylleæ.
25. Amarantaceæ.
26. Salsolaceæ.
27. Polygonaceæ.

28. Nyctagineæ.

RANUNCULACEÆ

CLEMATIS, Linn.

ARISTATA, R. Br. All over the district on hills; common; 6.

MICROPHYLLA, DC. Same habitat and range as last; common;

August; 9.

RANUNCULUS, Linn.

LAPPACEUS, Sm. Common all over the district; Spring and Summer; 9.

RIVULARIS, Bks. & Sol. Common on river banks; Spring; 6. HIRTUS, Bks. & Sol.; 4.

PARVIFLORUS, Linn. On river flats and uplands; common; Spring; 6.

DILLENIACEÆ.

HIBBERTIA, Andr.

STRICTA, R. Br. On uplands and hills all over district; common; Spring and Summer; 9.

ACICULARIS, F.v.M. Beaudesert, Cooyal; on gravelly hills; rare; Spring; 6.

PEDUNCULATA, R. Br.; 2.

LINEARIS, R. Br. Cooyal; 4.

DIFFUSA, R. Br. Everywhere; common; Spring; 2.

DENTATA, R. Br. On foothills at Guntawang; common; Spring and Summer; 4.

LAURACEÆ.

CASSYTHA, Linn.

GLABELLA, R. Br. Semiparasitic, generally on *Casuarina*, or epacrids; on hills everywhere; common; always in flower; 10.

PAPAVERACEÆ.

PAPAVER, Tour.

ACULEATUM, Thunb. All over the district, but rare; Oct.; 6.

CRUCIFERÆ.

NASTURTIUM, R. Br.

TERRESTRE, R. Br. Common on lowlands; Spring; 6.

CARDAMINE, Tour.

HIRSUTA, Linn. Common on lowlands; Spring; 9.

LEPIDIUM, Tour.

RUDERALE, Linn. Common on lowlands; Spring; 10.

VIOLACEÆ.

VIOLA, Tour.

BETONICIFOLIA, Sm. All over district but not common; September; 6.

HEDERACEA, Labill. Cooyal only; Spring to Autumn; 6.

HYBANTHUS, Jacq.

FILIFORMIS, F.v.M. Cooyal and Home Rule; Spring and Summer; 4.

HYMENANTHERA, R. Br.

Banksii, F.v.M. Cooyal, and here and there along bank of river; rare; 11.

PITTOSPOREÆ.

PITTOSPORUM, Bks.

UNDULATUM, Andr. A few trees at Mullamuddy; October and November; wood suitable for engraving; 5.

PHILLYROIDES, DC. Two Mile Flat; rare; early Spring; 13. Bursaria, Cav.

spinosa, Cav. Everywhere common; Summer; commonly called "Black-thorn;" wood tough and said to be suitable for wood-engraving; 10.

MARIANTHUS, Hueg.

PROCUMBENS, Benth. On stony ridges, Biraganbil, Beaudesert, Mullamuddy, Cooyal; not common; September and October; 5.

BILLARDIERA, Sm.

SCANDENS, Sm. Common on rocky hills; Spring; 6.

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CHEIRANTHERA, Cunn.

LINEARIS, Cunn. Common on rocky hills; handsome flower and worthy of cultivation; Spring; 8.

DROSERACEÆ.

DROSERA, Linn.

BINATA, Labill. On moist and dripping rocks at Cooyal; Summer; 6.

AURICULATA, Backh. Everywhere; Spring; 25.

PELTATA, Sm. Same as preceding species. All the plants of this family are said to be poisonous to stock, but I have never known animals to eat them, and as they only grow freely in moist seasons when other vegetation is plentiful, I imagine losses from this cause must be rare; 6.

ELATINEÆ.

ELATINE, Linn.

Americana, Arnott. On wet flats and on the margin of Cudgegong River; December, January and February; 9.

HYPERICINÆ.

HYPERICUM, Tour.

Japonicum, Thunb. Everywhere; common; all the year round; 10.

POLYGALEÆ.

POLYGALA, Tour.

Sibirica, Linn. Beaudesert Hills; rare; Spring; 4.

Comesperma, Labill.

SPHÆROCARPUM, Steetz. Cooyal; Spring; 3. ERICINUM, DC. Cooyal; Spring; 5.

RUTACEÆ.

ZIERIA, Sm.

CYTISOIDES, Sm. Cooyal; 5.

BORONIA, Sm.

PINNATA, Sm. Cooyal; Spring and Summer; 6.

PHILOTHECA, Rudge.

AUSTRALIS, Rudge. Cooyal; two varieties, one narrow and the other wide-leaved; Spring; 3.

CORREA, Sm.

SPECIOSA, Andr. Home Rule, Cooyal, Goodaman; Spring; 6. Geijera, Sch.

SALICIFOLIA, Sch. Two Mile Flat; 3.

ZYGOPHYLLEÆ.

TRIBULUS, L'Obel.

TERRESTRIS, L'Obel. Everywhere on river flats; Burrs known as "Bulldogs" from their strength and penetrating powers; late Summer and Autumn; 13.

LINEÆ.

LINUM, Tour.

MARGINALE, Cunn. Everywhere on hills; very subject to a parasitic fungus (*Uredo lini*); Spring and Summer; 9.

GERANIACEÆ.

GERANIUM, Tour.

CAROLINIANUM, Linn. Everywhere; almost all through the year; 9.

ERODIUM, L'Hér.

CYGNORUM, Nees. Everywhere on low grounds; Spring to Autumn; good feed; 13.

PELARGONIUM, L'Hér.

AUSTRALE, Willd. Cooyal; Spring; 9.

OXALIS, Linn.

CORNICULATA, Linn. Everywhere; all the year; 9.

MALVACEÆ.

Plagianthus, R. & G. Forst.

PULCHELLUS, A. Gr.; 11.

SIDA, Linn.

CORRUGATA, Linn. On flats and uplands; Spring and Summer; 13.

PAVONIA, Cav.

HASTATA, Cav. On river banks and flats; in Spring it bears inconspicuous, and in Summer coloured flowers; 3.

Hibiscus, Linn.

TRIONUM, Linn. Guntawang, on basaltic soil; all Summer; often has green or inconspicuous flowers, as well as the ordinary coloured blossoms; 14.

STERCULIACEÆ.

Brachychiton, Sch. & Endl.

POPULNEUM, R. Br. Hills; Summer; used as forage in droughts; produces a gum like Tragacanth; 4.

EUPHORBIACEÆ

EUPHORBIA, Linn.

Drummondii, Bois. Everywhere; all the year; said to be poisonous to sheep; 10.

Poranthera, Rudge.

CORYMBOSA, Brongn. Guntawang; Spring; 2.

MICROPHYLLA, Brongn. Widely spread; Spring & Summer; 10. PSEUDANTHUS, Sieb.

DIVARICATISSIMUS, Benth. Reedy Creek; April; 2.

Bertya, Planch.

ROSMARINIFOLIA, Planch. Cudgegong River near Appletree Flat; early Summer; rare; 18.

PHYLLANTHUS, Linn.

Gastroemii, J. Muell. Common everywhere; Spring and Summer; 3.

PHYLLANTHUS, Linn.

AUSTRALIS, J. Hook. Common everywhere; Spring and Summer; 18.

THYMOIDES, Sieb. Rocky places; Spring and Summer; 19.

ADRIANA, Gaud.

TOMENTOSA, Gaud. On banks of rivers and creeks; Summer; eaten by cattle and horses; sometimes called "Castor Oil;" 13.

URTICACEÆ.

Ficus, Tour.

RUBIGINOSA, Desf. Home Rule, Warrable Hills, Mullamuddy, Cooyal, on mountains; 3.

PARIETARIA, Tour.

DEBILIS, G. Forst. Rocky places; rare; 10.

URTICA, Tour.

INCISA, Poir. Mullamuddy and Appletree Flat; 6.

CASUARINEÆ.

Casuarina, Rumph.

GLAUCA, Sieb. On hills; 8.

STRICTA, Ait.

SUBEROSA, Otto & Diet. On hills; 5.

Cunninghamiana, Miquel. At river; February and March; in hard seasons all the species are cut down for feed for stock; 3.

DISTYLA, Vent. Reedy Creek, Biraganbil; Feb. and Mar.; 26.

SAPINDACEÆ.

DODONAEA, Linn.

TRIQUETRA, Wendl. Biraganbil, Cullenbone, Cooyal; known as "Wild hops;" 4.

VISCOSA, Linn. Biraganbil and Beaudesert; 10.

LOBULATA, F.v.M. Cullenbone; Spring; a very local species; 12

STACKHOUSIEÆ.

STACKHOUSIA, Sm.

LINARIFOLIA, Cunn. Guntawang; Spring and Summer; 6.

STACKHOUSIA, Sm.

MURICATA, Lindl. As previous species; 7. VIMINEA, Sm. Guntawang; Spring and Summer; 23.

PORTULACEÆ.

PORTULACA, Tour.

OLERACEA, Linn. Everywhere; Spring and Summer; used as a vegetable, and eaten by stock; 13.

CARYOPHYLLEÆ.

STELLARIA, Linn.

PUNGENS, Brongn. On rocks; Summer; 25.
GLAUCA, With. Everywhere; Spring to Autumn; 6.
FLACCIDA, Hk. As previous species; 11.
MULTIFLORA, Hk. As previous species; 26.

SAGINA, Linn.

APETALA, Linn. Everywhere; early Spring; 25; not recorded from N.S.W. in Census or Suppls.

SCLERANTHUS, Linn.

BIFLORUS, J. Hk. Everywhere; Spring; 5.

Spergularia, Pers.

RUBRA, Cambess. Guntawang, Home Rule; Spring and Summer; 26.

POLYCARPON, Loefl.

TETRAPHYLLUM, Loefl. Everywhere; Spring and Summer; suspected of killing lucerne by some farmers in New England; 9.

AMARANTACEÆ.

ALTERNANTHERA, Forsk.

TRIANDRA, Lam. Common everywhere all the year; 10.

PTILOTUS, R. Br.

OBOVATUS, F.v.M. Cullenbone and Home Rule; Summer; 13.

Euxolus, Raf.

MITCHELLII, F.v.M. 22.

INTERRUPTUS, Moq. 7; not hitherto recorded from N.S.W. MACROCARPUS, Benth. General, but not common; Summer; 4.

SALSOLACEÆ.

RHAGODIA, R. Br.

in bad seasons this and the two following plants are only to be found near fences, or in other places where they are protected from stock; 4.

NUTANS, R. Br. As previous species; 6. LINIFOLIA, R. Br. As previous species; 3.

CHENOPODIUM, Tour.

TRIANGULARE, R. Br. Everywhere; Summer; 3. CARINATUM, R.Br. Everywhere; Summer; 15.

ATRIPLEX, Tour.

SEMIBACCATUM, R. Br. Everywhere; Summer to Autumn; 15.

POLYGONACEÆ.

RUMEX, Linn.

Brownii, Camp. Marshy places; common; all the year; 6. Flexuosus, Sol. Same as last species; 16.

Polygonum, L'Obel.

PLEBEJUM, R. Br. Everywhere; a troublesome weed; nearly all the year; 17.

PROSTRATUM, R. Br. River banks; Summer and Autumn; 9. Hydropiper, Linn. Damp places; Spring to Autumn; 8.

NYCTAGINEÆ.

Boerhaavia, Vaill.

DIFFUSA, Linn. Everywhere; springs up in dry seasons, and for this reason is valuable, being liked by stock; 13.

CHORIPETALEÆ PERIGYNÆ.

1. Leguminosæ. 6. Halorageæ.

2. Rosaceæ. 7. Myrtaceæ.

3. Crassulaceæ. 8. Rhamnaceæ.

4. Onagreæ. 9. Araliaceæ.

5. Salicarieæ. 10. Umbelliferæ.

LEGUMINOSÆ.

OXYLOBIUM, Andr.

ELLIPTICUM, R. Br. Cooyal; November and December; 5. TRILOBATUM, F.v.M. Cooyal; November and December; 3.

DAVIESIA, Sm.

LATIFOLIA, R. Br. Biraganbil, Cooyal; Summer; known as "Wild hops" and used as a bitter; 11.

CORYMBOSA, Sm. Guntawang; Two Mile Flat; early Summer; 8.

SQUARROSA, Sm. General; Spring; 3.

ULICINA, Sm. General; Spring; 6.

GENISTIFOLIA, Cunn. Beaudesert Hills, Cullenbone; Spring; 8.

PULTENÆA, Sm.

SCABRA, R. Br. Var. BILOBA; 2.

MICROPHYLLA, Sieb.; 3.

TERNATA, F.v.M. General on hills; Spring and Summer; 4. STYPHELIOIDES, Cunn.; 2.

INCURVATA, Cunn. Cooyal; 1.

DILLWYNIA, Sm.

ERICIFOLIA, Sm. Everywhere; Spring and early Summer; 6. JUNIPERINA, Sieb. Two Mile Flat, Reedy Creek; Spring; 4.

Bossiæa, Vent.

PROSTRATA, R. Br. Everywhere; Spring; 6.

HETEROPHYLLA, Vent. Generally distributed over the district, but not common; Spring; 4.

HOVEA, R. Br.

LINEARIS, R. Br. Cooyal; Spring; 1.

HETEROPHYLLA, Cunn. A common plant everywhere; early Spring; 6.

LONGIFOLIA, R. Br. Reedy Creek; Spring; 20.

LONGIPES, Benth. Munghorn and Cooyal; Spring; 3.

Lotus, Tour.

AUSTRALIS, Andr. Crooked Creek; Spring; 10.

PSORALEA, Linn.

PATENS, Lindl. On river banks and flats; Summer; 13.

INDIGOFERA, Roy.

AUSTRALIS, Wild. Everywhere through the district; eaten by horses, although it has the reputation of being a very poisonous plant; Spring; 9.

BREVIDENS, Benth. On rocky ground; Spring & Summer; 21. SWAINSONA, Salisb.

GALEGIFOLIA, R. Br. Home Rule and Cooyal; Spring and Summer; 3,

CORONILLIFOLIA, Salisb. Generally distributed through the district; Spring and Summer; said to be poisonous to sheep, affecting the brain; the seeds are poisonous to fowls, and in one instance I knew of thirty fowls dying from eating the seeds; 3.

PHACOIDES, Benth. Common everywhere; Spring and Summer; 13.

PHACIFOLIA, F.v.M.; 19.

OROBOIDES, F.v.M. Everywhere; Spring and Summer; 22. MONTICOLA, Cunn. As last species; 3.

FRASERI, Benth. Eurunderee, Burrundulla, Mount Frome; Spring; 3.

ZORNIA, Gmel.

DIPHYLLA, Pers. Everywhere; Spring to Autumn; 7.

Desmodium, Desv.

BRACHYPODUM, A. Gray; 3.

varians, Endl. Guntawang, Cullenbone; Spring; 5.

Desmodium, Des.

RHYTIDOPHYLLUM, F.v.M. Cullenbone, Beaudesert Hills; Spring to Autumn; 3.

LESPEDEZA, Cl. Rich.

CUNEATA, G. Don. Two Mile Flat, Guntawang, Cullenbone; Summer; flowers vary much in size and appearance; 4.

GLYCINE, Linn.

CLANDESTINA, Wendl. Everywhere; almost all the year; 9.

KENNEDYA, Vent.

MONOPHYLLA, Vent. Everywhere; July to October or later; usually called "Sarsaparilla" and used in the same way as a bitter, *Smilax* the true Sarsaparilla not extending to this district; 6.

Cassia, Tour.

LEVIGATA, Willd. I have not collected this plant myself, but Dr. Woolls found it in the district; 3.

SOPHERA, Linn. This plant although common on the river flats at Wellington (45 miles distant), until lately was not found here; but when the railway was completed to Wellington a good deal of traffic began passing through Guntawang from Wellington, and very soon the plant made its appearance by the roadside, apparently introduced; it does not appear to thrive here as it does at Wellington, where it is a nuisance; 22.

AUSTRALIS, Sims. Two Mile Flat, Currangural; Spring and Summer; 23.

ACACIA, Tour.

SICULIFORMIS, Cunn. Everywhere; September; 24.

JUNIPERINA, Willd. Reedy Creek; rare; 5.

ASPARAGOIDES, Cunn.; 1.

ARMATA, R. Br. Everywhere; April to end of June; 15. vomeriformis, Cunn. Reedy Creek; rare; 25.

LEPROSA, Sieb. Guntawang, Reedy Creek; October; 2. STRICTA, Willd.; 24.

FALCATA, Willd.; 3.

ACACIA, Tour.

GLADHFORMIS, Cunn.; 1.

AMOENA, H. L. Wendl. Havilah, Mullamuddy; September and October; 2.

HAKEOIDES, Cunn.; 19.

SUAVEOLENS, Willd. Cooyal; 6.

LINIFOLIA, Willd.; 3.

LUNATA, Sieb.; Guntawang; 4.

BRACHYBOTRYA, Benth.; 19.

MYRTIFOLIA, Willd. One plant on the Beaudesert Hills is all I have ever seen of this species; 9.

ELONGATA, Sieb.; Cooyal; 4.

HOMALOPHYLLA, Cunn. The wood being sought after, only a few plants remain near Morrowolga, Two Mile Flat; 19.

IMPLEXA, Benth.; 4.

BINERVATA, DC.; 3.

TRIPTERA, Benth. Reedy Creek; 3,

LONGIFOLIA, Willd.; 6.

GLAUCESCENS, Willd.; 3.

SPECTABILIS, Cunn. Cooyal; 3.

DISCOLOR, Willd. All over district; August and Sept.; 24.

DECURRENS, Willd. Not at all plentiful, and it is rare to find it more than two or three inches in diameter; a few large trees in one of Mr. Rouse's paddocks near Guntawang; 6.

ROSACEÆ.

Rubus, Tour.

MOLUCCANUS, Linn. Common; rarely fruits; 23.

ACENA, Mut.

ovina, Cunn. Rare; 9.

SANGUISORBÆ, Vahl. Common in moist place; 6.

CRASSULACEÆ.

TILLÆA, Mich.

VERTICILLARIS, DC.; 9.

PURPURATA, J. Hook.; 26.

RECURVA, J. Hook.; 9.

ONAGREÆ.

EPILOBIUM, Dill.

TETRAGONUM, Linn. Spring to Autumn; 9.

JUSSIEUA, Linn.

REPENS, Linn. In the river; Spring; eaten by cattle; 8.

SALICARIEÆ.

LYTHRUM, Linn.

SALICARIA, Linn. In moist places by the river; late in Summer; 6.

HALORAGEÆ.

HALORAGIS, R. & G. Forst.

ELATA, Cunn.; 8.

CERATOPHYLLA, Zahlb. In stony places on hills; December and January; 20.

HETEROPHYLLA, Brongn. Moist places; Spring to Autumn; 8. TEUCRIOIDES, A. Gr.; 26.

CERATOPHYLLUM, Linn.

DEMERSUM, Linn. In the river; Spring and Summer; 8.

CALLITRICHE, Linn.

VERNA, Linn.; 9.

MYRTACEÆ.

CALYCOTHRIX, Labill.

TETRAGONA, Labill. Common at Cooyal and Home Rule, but I know only of one plant elsewhere, at Biraganbil; Spring and Summer; 9.

BÆCKEA, Linn.

Cunninghamii, Benth. A small group of plants on the flats near Biraganbil; 1.

LEPTOSPERMUM, R. & G. Forst.

LÆVIGATUM, F.v.M. Cooyal; Summer; 25.

SCOPARIUM, R. & G. Forst. Cooyal; Summer; 6.

CALLISTEMON, R. Br.

LANCEOLATUS, DC. Cooyal; Summer; 4.

CALLISTEMON, R. Br.

salignus, DC. Var. angustifolius. Crooked Creek, Stony Creek near Two Mile Flat, Biraganbil; late in Summer; 6.

MELALEUCA, Linn.

THYMIFOLIA, Sm. Cooyal, Home Rule, Reedy Creek; Summer; 3.

Nodosa, Sm. Reedy Creek; 3.

ANGOPHORA, Cav.

INTERMEDIA, DC. Everywhere; timber rarely used; the majority of the trees flower in alternate years, generally about February; 4.

EUCALYPTUS, L'Hér.

- STELLULATA, Sieb. I include this tree among our flora on the authority of Mr. C. Moore in an article on "Timbers of N.S.W." in "Industrial Progress of N.S.W.," 1870. It is also mentioned as from Mudgee in Mr. Arvid Nilson's "Timber Trees of N.S.W.," 1880; 2.
- MACRORRHYNCHA, F.v.M. The stringy-bark commonest in the district; 2.
- CAPITELLATA, Sm. Only found on sandstone as at Cooyal and Reedy Creek, and the Warrable Hills, Home Rule; 19.
- EUGENIOIDES, Sieb. Recorded as from Mudgee by Dr. Woolls in a paper on "Eucalypts of County of Cumberland" in P.L.S. N.S.W. Vol. V. p. 491; 2.
- HÆMASTOMA, Sm. Var. MICRANTHA. "Spotted Gum;" not common; 5.
- ridges; flowers usually red, but sometimes creamy white; 8.
- MELLIODORA, Cunn. "Yellowbox;" common, but appears to flourish best on the river flats and uplands; timber good, invaluable as fuel; 2.
- POLYANTHEMA, Sch. "Slaty-Gum;" common on ridges, where it does not attain a great size, but on flats at Tallewang it runs up into splendid trunks, which are much used in bridge-building, etc., the timber being considered very durable; bark smooth; 2.

EUCALYPTUS, L'Hér.

POPULIFOLIA, Hook. Dr. Woolls informed me that this tree occurs in our district; 3.

LARGIFLORENS, F.v.M. "Fuzzy-Box;" Two Mile Flat; 8.

- HEMIPHLOIA, F.v.M. "White-Box;" two distinct trees in this district are known as white-box, but one having smooth shining dark green leaves is sometimes called "green white-box" or "green-box;" this grows on flats and has small seed vessels: the other which has powdery bluish leaves and larger fruits is named in contradistinction "grey white-box;" it frequents stony hills. On the lower foot hills both may sometimes be found. No. 1 flowers in April and May, and has different leaves in the young plants, and No. 2 flowers in June and July. It is probably E. albens (Mig.) which I believe is now united with E. hemiphloia, but I cannot help thinking they are distinct: the only point of resemblance is the bark. Both afford desirable timber, and excellent fuel; 8.
- SIDEROPILOIA, Benth. "White Ironbark;" Reedy Creek; considered by some timber-getters the better of the two ironbarks; but others hold an opposite opinion; 2.
- GLOBULUS, Labill. Only at Mullamuddy; the Meroo, from whence I have seen other specimens, lies outside the boundaries I have mentioned; only seeds and buds on the trees in October; the seeds collected germinated freely; 24.
- GONIOCALYX, F.v.M. On the authority of Dr. Woolls, who mentions it in his work, "The Plants of N. S. Wales," 1885; 19.
- STUARTIANA, F.v.M. Known in vicinity of Mudgee as "Peppermint," and at Cooyal as "Woolly Butt;" timber not good; makes very bad fuel, but when burnt, excellent charcoal; 25.
- VIMINALIS, Labill. "White Gum;" Home Rule, Cooyal, and more sparsely all over the district; 25.

EUCALYPTUS, L'Hér.

DEALBATA, F.v.M. This, Dr. Woolls says, is regarded by some as a variety of the preceding, but I have little doubt that it is a good species. It is known as "White," or "Cabbage-gum"; useless for timber as it chips off and warps so much that, if bolted down, the bolts sink into the wood as it curls; Cooyal, Home Rule, Biraganbil.

ROSTRATA, Schl. "River Gum," "Yarrah;" grows only on river flats; some of the old trees of this species are perfect studies for the landscape painter, and a portfolio might be filled with "bits" of the most delightful kind on the Menah Flat alone, where the trees have a gnarly character with drooping foliage that I have not observed elsewhere; timber good, but in large logs almost impossible to burn; 13.

TERETICORNIS, Sm. "Blue Gum;" Reedy Creek, Two Mile Flat, Home Rule. Whatever doubts may exist as to the capabilities of the Mudgee district in other respects, it must be admitted to be unrivalled in the production of wool, and few districts, as will be seen from list above, excel it in producing hardwood. I think there is a great future before Mudgee in the matter of timber production, and those who have seen its forest-clad hills will, I am sure, agree with me; 4.

METROSIDEROS, Bks.

GLOMULIFERA, Sm. Collected by Dr. Woolls; 3.

RHAMNACEÆ.

Pomaderris, Labill.

LANIGERA, Sims. Cooyal; Summer; known to settlers by the curious name of "Wild Quince;" 24.

^{*} In addition to the above Eucalypts, I have in my list E. botryoides, Sm., and E. obliqua, L'Heritier, but as I have forgotten the authority for including them, and can find no references to them in my notes, I thought it best not to include them, especially as both are coast-loving trees.

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CRYPTANDRA, Sm.

AMARA, Sm. Everywhere; in early spring; easily transplanted but rarely lives more than one season in a garden; 6.

COLLETIA, Comm.

Pubescens, Brongn. On basaltic soil, Guntawang; very rare; 24.

ARALIACEÆ.

Panax, Linn.

SAMBUCIFOLIUS, Sieb. Near Appletree Flat, and at Mullamuddy; very rare; 5.

UMBELLIFERÆ.

HYDROCOTYLE, Tour.

LAXIFLORA, DC. The only species I know in the district, but Dr. Woolls in an article on the vegetation of this district in *Sydney Morning Herald* fifteen years ago, mentions having collected three others (which however he does not name); known to some as "native mignonette;" grows everywhere; S.

Didiscus, DC.

incisus, Hook. Cooyal only; 3.

XANTHOSIA, Rudge.

PILOSA, Rudge. Cooyal only; 5.

ACTINOTUS, Labill.

HELIANTHI, Labill. Beaudesert, Mudgee Hills, Reedy Creek, Cullenbone, etc.; on stony ground; in summer, but a few blooms may be found up to April; near Mudgee this year there was a patch of several acres which could be seen quite white on the hills for miles; 4.

ERYNGIUM, Tour.

ROSTRATUM, Cavan. General, but not common; January; 15. Apium, Tour.

LEPTOPHYLLUM, F.v.M. In most places; common; 4.

CRANTZIA, Nutt.

LINEATA, Nutt. In marshy spots and along edge of the river; 6.

Daucus, Tour.

BRACHIATUS, Sieb. Common but not plentiful; 9

SYNPETALEÆ PERIGYNÆ.

1. Olacineæ.

2. Santalaceæ.

3. LORANTHACEÆ.

4. Proteaceæ.

THYMELEÆ.
 RUBIACEÆ.

. 7. Caprifoliaceæ.

8. Compositæ.

9. Campanulace Æ.

10. CANDOLLEACEÆ.

11 GOODENIACEÆ

OLACINEÆ.

OLAX, Linn.

STRICTA, R. Br. Cooyal; 3.

SANTALACEÆ.

SANTALUM, Linn.

LANCEOLATUM, R. Br.; 21.

OBTUSIFOLIUM, R. Br. Crooked Creek, Guntawang; Feb.; 2.

CHORETRUM, R. Br.

LATERIFLORUM, R. Br.; 2.

CANDOLLEI, F.v.M.; 3.

LEPTOMERIA, R. Br.

ACIDA, R. Br.; 4.

OMPHACOMERIA, Endl.

ACERBA, A. de Cand. These 4 species are all known as. "Native Currant;" scarce, rarely bearing fruit; 2.

Exocarpus, Labill.

CUPRESSIFORMIS, Labill. Everywhere; fruit ripe in February and March; 9.

STRICTA, R. Br. Cullenbone; rare; October and on; 25.

LORANTHACEÆ

Notothixos, Oliv.

INCANUS, Oliv. On Currajong trees (Sterculia); always in flower; 3.

LORANTHUS, Linn.

CELASTROIDES, Sieb. On Eucalypts; 4.

LONGIFLORUS, Desr.; 7.

EXOCARPI, Behr.; 13.

LINOPHYLLUS, Fenzl. Var. PARVIFLORUS; on Callitris; 13. PENDULUS, Sieb.; 13.

PROTEACEÆ.

Isopogon, R. Br.

PETIOLARIS, Cunn. Cooyal and Home Rule; 1.

Persoonia. Sm.

LINEARIS, Andr. Guntawang; 4.

PINIFOLIA, R. Br. Guntawang; 1.

REVOLUTA, Sieb. Guntawang; 1.

CUNNINGHAMII, R. Br. Cooval; 1.

CHAMÆPEUCE, Lhot. Guntawang; 2.

GREVILLEA, R. Br.

ILICIFOLIA, R. Br. I find this given as from Mudgee by Dr. Woolls in the list of Mudgee Plants published in Sydney Morning Herald in 1872. In the Census of Australian plants, however, its distribution is limited to South Australia and Victoria. It may perhaps be a misprint, or synonym.

FLORIBUNDA, R. Br. Cullenbone only, and there in one limited locality and rare; 4.

CINEREA, R. Br. Cooyal; 1.

SERICEA, R. Br. Cooval; 1.

TRITERNATA, R. Br. Reedy Creek, Cooyal; 2.

RAMOSISSIMA, Meiss. Everywhere, but not plentiful; 1. HAKEA, Schr.

MICROCARPA, R. Br. Cooyal; 24.

LOMATIA, R. Br.

ILICIFOLIA, R. Br. Cooyal; 2.

SILAIFOLIA, R. Br. Cooyal; called by settlers "Flowering fern;" 3.

BANKSIA, Linn.

MARGINATA, Cav. Cooyal; 25.

THYMELEÆ.

PIMELEA, Bks. & Sol.

GLAUCA, R. Br.; 6.

COLLINA, R. Br.; 4.

LINIFOLIA, Sm.; 5.

CURVIFLORA, R. Br.; 6.

These four species are generally distributed.

RUBIACEÆ.

OPERCULARIA, Gaert.

HISPIDA, Spreng. Beaudesert Hills and Cullenbone; 2.

DIPHYLLA, Gaert. Cullenbone; both flower in early Summer; 3.

Pomax, Sol.

UMBELLATA, Sol. Everywhere on stony hills; Spring; 8.

ASPERULA, Dod.

OLIGANTHA, F.v.M. Everywhere; 6.

GALIUM, Dod.

UMBROSUM, Sol.; 25.

CAPRIFOLIACEÆ.

Sambucus, Tour.

XANTHOCARPA, F.v.M. Only in Mullamuddy gully; Nov.; 4.

COMPOSITÆ.

LAGENOPHORA, Cass.

SOLENOGYNE, F.v.M. Everywhere; all the year round; 3.

Brachycome, Cass.

DIVERSIFOLIA, Fisch. and Mey.; and var. Humilis. Everywhere; early spring; 25.

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BRACHYCOME, Cass.

MELANOCARPA, Sond. and F.v.M. Reedy Creek; all the year; 19.

PACHYPTERA, Turc.; 27.

SCAPIGERA, DC.; 2.

GRAMINEA, F.v.M. Everywhere common all the year; 25.

DECIPIENS, J. Hook. Only collected at Crooked Creek, Cullenbone and Reedy Creek; in Spring and again in Autumn; 25.

STRICTA, DC.; 11.

CILIARIS, Less. Common everywhere; Summer; 26.

CALOCARPA, F.v.M.; 19.

MARGINATA, Benth. Guntawang; Beaudesert; Goree; 3.

MINURIA, DC.

LEPTOPHYLLA, DC.; 15.

Cunninghamii, Benth. On hills; Spring; 19.

CALOTIS, R. Br.

CUNEIFOLIA, R. Br. Everywhere; common; always in flower; 8.

LAPPULACEA, Benth. As previous species; 15.

ASTER, Tour.

STELLULATUS, Labill.; 6.

RAMULOSUS, Labill.; 25.

MICROPHYLLUS, Pers.; 25.

VITTADINIA, A. Rich.

AUSTRALIS, A. Rich., and var. TENUISSIMA; 9.

SCABRA, DC.; 3.

GNAPHALIUM, Linn.

LUTEO-ALBUM, Linn.; 10.

JAPONICUM, Thunb.; 9.

PURPUREUM, Linn.; 3.

PODOLEPIS, Labill.

ACUMINATA, R. Br. Stony hills; August to October; 6.

LEPTORRHYNCHOS, Less.

SQUAMATUS, Less. Common everywhere in Spring; 25. ELONGATUS, DC. Biraganbil; rare; 26.

HELIPTERUM, DC.

ANTHEMOIDES, DC. Beaudesert Hills, Home Rule, Cooyal; 6. INCANUM, DC. On stony ground all through the district; 6. DIMORPHOLEPIS, Benth. Spreads rapidly on cleared ground; September and October; 27.

HELICHRYSUM, Vaill.

LUCIDUM, Henck. Everywhere on stony ground; Spring to Autumn; 10.

ELATUM, Cunn.; 4.

APICULATUM, DC. Everywhere; Spring & early Summer; 10. SEMIPAPPOSUM, DC. As last species; 9.

Cassinia, R. Br.

ACULEATA, R. Br.; 25.

LÆVIS, R. Br.; 22.

ARCUATA, R. Br.; 27.

AMMOBIUM, R. Br.

ALATUM, R. Br. Common in Spring on River flats; has a tendency to spread in cultivated ground; 3.

Angianthus, Wendl.

TOMENTOSUS, Wendl. Guntawang; rare; 28. STRICTUS, Benth. Guntawang; rare; 27.

GNAPHALODES, A. Gr.

ULIGINOSUM, Spring; discharges its ripe seeds from a miniature mortar like a flight of rockets. The contrivance by which this is accomplished is worthy of attention; 15.

CRASPEDIA, G. Fors.

RICHEA, Cass. In Spring common everywhere; 9.

Siegesbeckia, Linn.

ORIENTALIS, Linn.; 15.

ECLIPTA, Linn.

PLATYGLOSSA, F.v.M.; 17.

GLOSSOGYNE, Cass.

TENUIFOLIA, Cass.; 14.

COTULA, Linn.

AUSTRALIS, J. Hook. A troublesome weed; 9.

CENTIPEDA, Lour.

orbicularis, Lour. This plant, which flowers here in autumn, is the one to which Dr. Woolls has lately directed attention as a remedy for "blight;" made into an infusion (loz. to a pint of water), it is said to be of great service in reducing inflammation; 10.

Cunninghami, F.v.M.; 27.

SENECIO, Tour.

LATTUS, Sol.; 9.

vagus, F.v.M.; 2.

AUSTRALIS, A. Rich.; 25.

ERECHTITES, Raf.

ARGUTA, DC.; 9.

CYMBONOTUS, Cass.

LAWSONIANUS, Gaud. August and September; 26.

CENTAUREA, Linn.

AUSTRALIS, Benth. & J. Hook. Rare; Summer; 4.

CREPIS, Linn.

Japonica, Benth. Everywhere; a troublesome weed; 3.

CAMPANULACEÆ.

LOBELIA, Linn.

SIMPLICICAULIS, R. Br. On hills; Summer; usually forms a thick stem in Spring, and then when the heat of Summer comes on, having but slight root-hold, it draws upon the store of nutriment in its stem to enable it to blossom; I have often collected it with the roots so dry that they would crumble in my fingers, and yet it was quite fresh and bright looking in its blossoms and leaves above the thicker stem; 25.

LOBELIA, Linn.

PURPURASCENS, R. Br. Common on banks of river and creeks; 8.

ISOTOMA, R. Br.

AXILLARIS, Lindl. Home Rule and Cooyal in crevices of rock; easily transplanted and makes an admirable basket or rockwork plant, flowering freely for months; 4.

FLUVIATILIS, F.v.M. On creek and river banks; always in flower; 6.

WAHLENBERGIA, Schr.

GRACILIS, A. DC. Everywhere; always in flower; 10.

CANDOLLEACEÆ.

CANDOLLEA, Labill. (Stylidium Sw.).

GRAMINIFOLIA, Sw.; 6.

LINEARIS, Sw.; both common everywhere; early Spring; 1. LARICIFOLIA, Rich. Cooyal; 3.

LEEWENHOEKIA, R. Br.

DUBIA, Sond. Common on uplands in early Spring; 26.

GOODENIACEÆ.

Dampiera, R. Br. stricta, R. Br. Cooyal; Summer; 25.

GOODENIA, Sm.

DECURRENS, R. Br.; 1.

GENICULATA, R. Br. Cullenbone; Crooked Creek; 9. HEDERACEA, Sm. Guntawang, on banks of river; 4. HETEROPHYLLA, Sm. Guntawang, on banks of river; 3. HETEROMERA, F.v.M. Common everywhere; 19. PANICULATA, Sm. Cooyal, Biraganbil, Home Rule; 4.

VELLEYA, Sm.

PERFOLIATA, R. Br. Cooyal; usually considered alpine in its habitat, but it certainly cannot be considered so here, as the range on which it occurs is not more than 2,000 feet above the sea, and it is found from top to bottom of it, being more luxuriant in the latter situation on account of the more abundant moisture; 1.

PARADOXA, R. Br. Common everywhere; always in flower; 6. MAGROCALYX, DeVr. As last species; 3.

SYNPETALEÆ HYPOGYNÆ.

1.	GENTIANEÆ.	7.	SCROPHULARINEÆ.
2.	PLANTAGINEÆ.	8.	BIGNONIACEÆ.
3.	PRIMULACEÆ.	9.	Asperifoliæ,
4.	Myrsinaceæ.	10.	Labiatæ.

Convolvulaceæ.
 Solanaceæ.

12. Myoporinæ.

11. Verbenaceæ.

13. EPACRIDEÆ.

GENTIANEÆ.

SEBÆA, Sol.

OVATA, R. Br. Common everywhere; Spring; both this species and the next contain a bitter principle, and are sometimes used in cases of diarrhœa and dysentery; 9.

ERYTHRÆA, Pers.

AUSTRALIS, R. Br. Flowers a little later than the preceding species, and up till April; 10.

PLANTAGINEÆ.

PLANTAGO, Tour.

VARIA, R. Br. Common everywhere; Spring; 9.

PRIMULACEÆ.

Samolus, Tour.

Valerandi, Linn. On river banks and in moist places; Spring; 4.

MYRSINACEÆ.

MYRSINE, Linn.

VARIABILIS, R. Br. Cooyal; 4.

CONVOLVULACEÆ.

Convolvulus, Tour.

ERUBESCENS, Sims. Common everywhere; Spring to Autumn; 9.

DICHONDRA, R. and G. Forst.

REPENS, R. and G. Forst. Common everywhere; 10.

SOLANACEÆ.

SOLANUM, Tour.

NIGRUM, Linn. Common everywhere; Spring to Autumn; spreads in cultivated ground; 10.

AVICULARE, G. Forst.; 6.

VERBASCIFOLIUM, Linn.; 3.

STELLIGERUM, Sm.; 3.

CAMPANULATUM, R. Br.; 3. The last two species I have found only at Mullamuddy.

CINEREUM, R. Br. Everywhere, but not common; 3.

NICOTIANA, Tour.

SUAVEOLENS, Lehm. Only at Mullamuddy; October; 13.

SCROPHULARINEÆ.

MIMULUS, Linn.

GRACILIS, R. Br. On banks and creeks all through the district; Spring to Autumn; 17.

REPENS, R. Br. Biraganbil, muddy flats; 9.

PROSTRATUS, Benth. Biraganbil, in moist places; 8.

GRATIOLA, Rupp.

PEDUNCULATA, R. Br.; 15.

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GRATIOLA, Rupp.

PERUVIANA, Linn. Both in marshy spots near river's edge; 10. Limosella, Linn.

AQUATICA, Linn. In lagoons and on river banks; 26.

VERONICA, Tour.

PERFOLIATA, R. Br. On stony hills throughout the district; September and October; said to be a mark of auriferous formations; 2.

PLEBEJA, R. Br.; 5.

SERPILLIFOLIA, Linn. On flats; September and October; I believe this is considered an alpine plant, but here it grows luxuriantly on flats at a height of not more than 1500 or 1600 feet above sea-level; 2.

EUPHRASIA, Tour.

Brownii, F.v.M.; 9. scabra, R. Br.; 9.

BIGNONIACEÆ.

TECOMA, de Juss.

AUSTRALIS, R. Br. Two Mile Flat, Beaudesert, Mullamuddy; September and October; 17.

ASPERIFOLIÆ.

Myosotis, Rupp.

Australis, R. Br.; 26.

SUAVEOLENS, Poir.; 11.

CYNOGLOSSUM, Tour.

SUAVEOLENS, R. Br.; 25.

AUSTRALE, R. Br.; 6.

LABIATÆ.

PLECTRANTHUS, L'Hérit.

PARVIFLORUS, Willd. 'Crooked Creek, in stony ground; Summer; 17.

MENTHA, Tour.

LAXIFLORA, Benth.; 2.

AUSTRALIS, R. Br.; 20.

SATUREJOIDES, R. Br.; 9.

All grow on low grounds and all alike known as "Pennyroyal." LYCOPUS, Tour.

AUSTRALIS, R. Br. Among reeds on bank of river; Summer; 6. SALVIA, Linn.

PLEBEJA, R. Br.; 4.

Scutellaria, Herm.

MOLLIS, R. Br. In stony places; Spring and Summer; 2.

PROSTANTHERA, Labill.

LINEARIS, R. Br. Two Mile Flat; I have seen only one plant of this species; Dr. Woolls collected three species of this genus at Cooyal, but does not give names; 1.

AJUGA, Linn.

AUSTRALIS, R. Br. Everywhere on hills; 6.

VERBENACEÆ.

Spartothamnus, Cunn.

JUNCEUS, Cunn. Reedy Creek and Cooyal; 3.

VERBENA, Tour.

OFFICINALIS, Linn. In moist places everywhere; August to May; 6.

MYOPORINÆ.

MYOPORUM, Bks. & Sol.

TENUIFOLIUM, G. Forst.; 23.

MONTANUM, R. Br. On hills; Spring and Summer; 13. Debile, R. Br. On stony foothills; 3.

EPACRIDEÆ.

STYPHELIA, Sol.

LÆTA, R. Br. April to August; known as "Five Corner;" 1. VIRIDIS, Andr. Cooyal only, collected by Mr. Percy Williams; 3.

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STYPHELIA, Sol.

TUBIFLORA, Sm. Cooyal only; 1.

HUMIFUSA, Pers. Reedy Creek; 26.

URCEOLATA, F.v.M. Everywhere; 4.

SAPIDA, F.v.M. Everywhere; 1.

STRIGOSA, Sm. Everywhere; 6.

MICROPHYLLA, Spreng. Cooyal, Reedy Creek; 1.

VIRGATA, Labill. Cooyal; 25.

ATTENUATA, F.v.M. Cooyal; 1.

ERICOIDES, Sm. Cooyal; 6.

ELLIPTICA, Sm. Cooyal; 5.

SCOPARIA, Sm. Cooyal; 5.

BRACHYLOMA, Sond.

DAPHNOIDES, Benth. Everywhere; September & October; 6.

EPACRIS, Cavan.

CRASSIFOLIA, R. Br. On wet rocks, Cooyal; nearly always in flower; 1.

APICULATA, Cunn. Cooyal; 1.

DRACOPHYLLUM, Labill.

SECUNDUM, R. Br. Cooyal; 1.

APETALEÆ GYMNOSPERMEÆ.

1. Coniferæ.

2. CYCADEÆ.

CONIFERÆ.

CALLITRIS, Vent.

VERRUCOSA, R. Br. Everywhere on hills; 13 columellaris, F.v.M. Cooyal; 3.

CYCADEÆ.

ENCEPHALARTOS, Lehm. Everywhere on hills;

MONOCOTYLEDONEÆ.

CALYCEÆ PERIGYNÆ.

1. ORCHIDEÆ.

3. Hydrocharideæ.

2. IRIDEÆ.

4. AMARYLLIDEÆ.

ORCHIDEÆ.

STURMIA, Reich.

REFLEXA, F.v.M. Cooyal and Mullamuddy; June to September; 3.

DENDROBIUM, Sw.

SPECIOSUM, Sm. Cooyal, Mullamuddy; October and November; 4.

TERETIFOLIUM, R. Br. Cooyal; 3.

DIPODIUM, R. Br.

PUNCTATUM, R. Br. Cooyal; December and January; 20.

Var. Hamiltonianum, Bailey. Guntawang; November to January; 3.

CYMBIDIUM, Sw.

SUAVE, R. Br. Collected by Dr. Woolls; 3.

THELYMITRA, R. & G. Forst.

LONGIFOLIA, Forst. Common everywhere; September and October; 9.

MEGCALYPTRA, R.D.F. Generally distributed; September and October; 1.

NUDA, R. Br.; 5

DIURIS, Sm.

AUREA, Sm. September and October; 3.

MACULATA, Sm. Everywhere; September and October; 6.

PEDUNCULATA, R. Br. Everywhere; August & Sept.; 25.

ABBREVIATA, F.v.M. A hill-loving species; October and November; 3.

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DIURIS, Sm.

SULPHUREA, R. Br. On the low country; September and October; 25.

TRICOLOR, R. D. F. Another hill-form; middle of August to October; 1.

ELONGATA, R. Br., and var. Longissima. Everywhere; from middle of September to December; 19.

DENDROBIOIDES, R.D.F. Guntawang; September; 1.

CALOCHILUS, R. Br.

CAMPESTRIS, R. Br. Rocky Hills; September; 5.

PRASOPHYLLUM, R. Br.

FLAVUM, R. Br. Reedy Creek; Cooyal; November; 1.

ELATUM, R. Br. Collected by Dr. Woolls; 26.

BREVILABRE, J. Hook. On hills & flats; August to October; 5.

PATENS, R. Br., and var. TRUNCATUM, Lindl.; 6.

FUSCUM, R. Br. and var. GRANDIFLORUM; 6.

ALPINUM, R. Br. Grows on the hills; November.

RUFUM, R. Br. On flats and creek banks; May and June; 5.

MICROTIS, R. Br.

PORRIFOLIA, Spreng.; 9.

PARVIFLORA, R. Br. October to December.

CORYSANTHES, R. Br.

Hamiltonii, R.D.F. Beaudesert Hills; rare; July and August; 1.

PTEROSTYLIS, R. Br.

CONCINNA, R. Br. Moist gullies; June to September; 8.

STRIATA, R.D.F. Beaudesert Hills; rare; July; 1.

CURTA, R. Br. July to October; 6.

ACUMINATA, R. Br. September and October; 2.

NUTANS, R. Br. Cooyal, Mullamuddy, Biraganbil; June and July; 6.

PTEROSTYLIS, R. Br.

CLAVIGERA, R.D.F. Biraganbil Hills; September; 1.

REFLEXA, R. Br. Common everywhere; March to July; 27.

OBTUSA, R. Br. Only found at Cooyal; April; 11.

PARVIFLORA, R. Br. Common everywhere; March to June; 5.

MUTICA, R. Br. Common everywhere; August to October; 6.

CYCNOCEPHALA, R.D.F. Common; August and September; 1.

RUFA, R. Br. General; July to November; 9.

MITCHELLI, Lindl. Common everywhere; September to November.

SQUAMATA, R. Br. On rocky hill-sides; September to November.

Woollsii, R.D.F. Eastern side of Beaudesert Range; October, November and December; 1.

LONGIFOLIA, R. Br. In shady gullies; June to September; 25.

CALEYA, R. Br.

MINOR, R. Br. Biraganbil; November; 18.

ACIANTHUS, R. Br.

FORNICATUS, R. Br. Everywhere; April to September; 3.

CYRTOSTYLIS, R. Br.

RENIFORMIS, R. Br. Common; August to October; 9.

Lyperanthus, R. Br.

SUAVEOLENS, R. Br. Beaudesert Hills, Biraganbil; September to November; 11.

ERIOCHILUS, R. Br.

AUTUMNALIS, R. Br. Common everywhere; March to May; 6.

CALADENIA, R. Br.

CLAVIGERA, A. Cunn. Goree, Guntawang, Biraganbil; rare; September and October; 11.

DILATATA, R. Br. Common everywhere; September to November; 12.

Caladenia, R. Br.

ARENARIA, R.D.F. Beaudesert Hills; October and November; rare; 1.

FILAMENTOSA, R. Br. Common on rocky hills; August and September; 33.

CUCULLATA, R.D.F. Guntawang, Cooyal; October; 1.

CARNEA, R. Br. Everywhere; August to October; 6.

ALBA, R. Br. Cooyal; September; 3.

CÆRULEA, R. Br. Common; August to October; 25.

CHILOGLOTTIS, R. Br.

FORMICIFERA, R.D.F. Cooyal; September; 1.

TRAPEZIFORMIS, R.D.F. Guntawang, Cooyal, Mullamuddy, Cullenbone; September and October; 1.

GLOSSODIA, R. Br.

MAJOR, R. Br. Everywhere; August to October; 6.

IRIDEÆ.

Patersonia, R. Br.

SERICEA, R. Br. On low hills; 4.

HYDROCHARIDEÆ.

HALOPHILA, Thou.

OVATA, Gaud. In River; 6.

OTTELIA, Pers.

OVALIFOLIA, L. C. Rich. In River; 13.

VALLISNERIA, Linn.

SPIRALIS, Linn. In River; 20.

AMARYLLIDEÆ.

Hypoxis, Linn.

HYGROMETRICA, Labill. In lowlands; flowers almost anytime after rain; 6.

CALYCEÆ HYPOGYNÆ.

1. LILIACEÆ.

5. ALISMACEÆ.

2. Typhaceæ.

6. COMMELINEÆ.

3. Lemnace.e.

7. Junceæ.

4. FLUVIALES.

8. Restiaceæ.

LILIACEÆ.

DIANELLA, Lam.

LONGIFOLIA, R. Br.; 6.

REVOLUTA, R. Br.; 9.

CÆRULEA, Sims.; 3.

EUSTREPHUS, R. Br.

Brownii, F.v.M. Cooyal; Summer; 4.

GEITONOPLESIUM, Cunn.

CYMOSUM, Cunn. Cooyal; 4.

WARMBEA, Thun.

DIOICA, F.v.M. Everywhere; two varieties; August; 9.

BULBINE, Linn.

BULBOSA, Haw. Common everywhere; August to October or later; 6.

THYSANOTUS, R. Br.

Patersoni, R. Br. On hills; Summer; rare; 26.

JUNCEUS, R. Br. Everywhere; November to January; 1.

Cæsia, R. Br.

VITTATA, R. Br.; 6.

TRICORYNE, R. Br.

ELATIOR, R. Br. Everywhere; Spring and Summer; 9.

STYPANDRA, R. Br.

GLAUCA, R. Br. Flowers in spring on rocky hills; 29.

ARTHROPODIUM, R. Br.

PANICULATUM, R. Br.; 6.

MINUS, R. Br.; 25.

STRICTUM, R. Br.; 6

LAXUM, Sieb.; 19.

BARTLINGIA, F.V.M.

GRACILIS, F.v.M. Common on flats; August to April; 4.

XEROTES, R. Br.

LONGIFOLIA, R. Br.; 6.

Brownii, F.v.M.; 17.

THUNBERGII, F.v.M.; 8.

FLEXIFOLIA, R. Br. All on poor soil; Summer; 1.

LEUCOCEPHALA, R. Br. On flats; Winter, beginning early in May; 8.

XANTHORRHŒA, Sm.

ARBOREA, R. Br. On rocky ranges; Summer; 3.

TYPHACEÆ.

TYPHA, Tour.

ANGUSTIFOLIA, Linn. On margin of river; Spring; 10.

Sparganium, Tour.

ANGUSTIFOLIUM, R. Br. On margin of river; Spring; 4.

LEMNACEÆ.

LEMNA, Linn.

OLIGORRIHIZA, Kurz.; 17.

POLYRRHIZA, Linn.; 2.

FLUVIALES.

TRIGLOCHIN, Riv.

PROCERA, R. Br.; 10.

POTAMOGETON, Fuchs.

NATANS, Linn.; 9.

ALISMACEÆ.

DAMASONIUM, Tour.

AUSTRALE, Salisb. In dams and lagoons; 15.

COMMELINEÆ.

COMMELINA, Plum.

CYANEA, R. Br. On sandy banks of rivers, and in one instance on a basaltic point near Guntawang; late in Summer; 7.

JUNCEÆ.

LUZULA, DC.

CAMPESTRIS, DC. On lowlands; Spring; 9.

Juncus, Tour.

BUFONIUS, Linn.; 9.

HOMALOCAULIS, F.v.M.; 19.

COMMUNIS, E. Mey.; 9.

PALLIDUS, R. Br.; 9.

PRISMATOCARPUS, R. Br.; 9.

RESTIACEÆ.

CENTROLEPIS, Labill.

FASCICULARIS, Labill.; 25.

ACALYCEÆ HYPOGYNEÆ.

1. Cyperaceæ.

2. Gramineæ.

CYPERACEÆ.

KYLLINGIA, Rottb.

MONOCEPHALA, Rottb.; 22.

CYPERUS, Tour.

GRACILIS, R. Br.; 8.

DIFFORMIS, Linn.; 13.

concinnus, R. Br.; 4.

VAGINATUS, R, Br.; 13.

FULVUS, R. Br.; 22.

CARINATUS, R. Br.; 7.

ORNATUS, R. Br.; 3.

congestus, Vahl.; 30

300 A LIST OF THE INDIGENOUS PLANTS OF THE MUDGEE DISTRICT,

CYPERUS, Tour.

LUCIDUS, R. Br.; 20.

EXALTATUS, Retz.; 17.

HELEOCHARIS, R. Br.

ATRICHA, R. Br. On margin of river; 7.

FIMBRISTYLIS, Vahl.

COMMUNIS, Kunth; 17.

Scirpus, Tour.

SETACEUS, Linn.; 9.

SCHOENUS, Linn.

IMBERBIS, R. Br.; 2.

Brownii, Hook.

BREVIFOLIUS, R. Br.; 15.

CLADIUM, R. Br.

TERETIFOLIUM, R. Br. In water at river's edge: Spring; 3. MICROSTACHYUM, F.v.M.; 2.

CAUSTIS, R. Br.

FLEXUOSA, R. Br. Known as "Curly Cane" and used for brooms; Cooyal only; 23.

CAREX, Rupp.

INVERSA, R. Br.; 9.

PANICULATA, Linn.; 9.

PSEUDO-CYPERUS, Linn.; 9.

GRAMINEÆ.

ERIOCHLOA, Humb.

ANNULATA, Kunth; Reedy Creek; April; 22.

PASPALUM, Linn.

DISTICHUM, Linn.; 31.

PANICUM, Tour.

SANGUINALE, Linn.; 32.

LEUCOPHÆUM, Humb.; 8.

FLAVIDUM, Retz.; 7.

CRUS-GALLI, Linn.; 13.

ATRO-VIRENS, Trin.; 4.

IMPERATA, Cyr.

ARUNDINACEA, Cyr. On river banks; 10.

ERIANTHUS, L. C. Rich.

FULVUS, Kunth; 21.

HEMARTHRIA, R. Br.

COMPRESSA, R. Br. Cullenbone, Gulgong; rare; 9.

Andropogon, Roy.

SERICEUS, R. Br.; 13.

REFRACTUS, R. Br.; 23.

montanus, Roxb.; 23.

HALEPENSIS, Sib. & Sm.; 31.

AUSTRALIS, Spreng.; 23.

ANTHISTIRIA, Linn.

CILIATA, Linn. fil. This year this grass has attained a luxuriance seldom seen; I collected numbers of stalks over 7 feet in height; 10.

ALOPECURUS, Linn.

GENICULATUS, Linn.; 9.

Aristida, Linn.

BEHRIANA, F.V.M.; 8.

STIPA, Linn.

SEMIBARBATA, R. Br.; 9.

DICHELACHNE, Endl.

CRINITA, J. Hook.; 9.

SCIUREA, J. Hook.; 6.

ECHINOPOGON, Palis.

OVATUS, Palis. Rare; 9.

PAPPOPHORUM, Schr.

COMMUNE, F.v.M.; 13.

Sporobolus, R. Br.

VIRGINICUS, Humb. & Kunth; 13.

INDICUS, R. Br.; 15.

LINDLEYI, Benth.; 15.

AGROSTIS, Linn.

Solandri, F.v.M.; 9.

DANTHONIA, DC.

PENICILLATA, F.v.M.; 9.

NERVOSA, J. Hook.; 26.

CYNODON, L. C. Rich.

DACTYLON, L. C. Rich.; 15.

CHLORIS, Sw.

TRUNCATA, R. Br.; 8.

Poa, Linn.

CÆSPITOSA, G. Forst.; 9.

Eragrostis, Palis.

TENELLA, Palis.; 17.

LEPTOSTACHYA, Steud.; 3.

Brownii, Nees, vars.interruptus and patens. Of late the last of these two varieties has sprung up here, spreading more each year; at present large patches of the river-flats are covered with it, but neither sheep nor cattle seem to like it; 13.

SETIFOLIA, Nees; 21.

AGROPYRON, Gaert.

SCABRUM, Palis.; 9.

ARUNDO, Tour.

Phragmites, Dod. Forms dense beds in river wherever the water is shallow; eaten by stock in bad seasons; 6.

ACOTYLEDONEÆ.

ACOTYLEDONEÆ VASCULARES.

1. Rhizospermæ

2. FILICES

RHIZOSPERMÆ.

AZOLLA, Lam.

PINNATA, R. Br.; 8.

MARSILEA, Linn.

QUADRIFOLIA, Linn.; 13.

FILICES.

OPHIOGLOSSUM, Tour.

VULGATUM, C. Bauh. On basaltic flats, Guntawang; fruit in winter; 20.

HYMENOPHYLLUM, Sm.

Tunbridgense, Sm. Cooyal and Mullamuddy; very rare; 5.

GLEICHENIA, Sm.

CIRCINATA, Sw. On moist rocks at Cooyal; 20. FLABELLATA, R. Br. At "The Drip" Cooyal; 5.

OSMUNDA, Tour.

BARBARA, Thunb. Cooyal, in swampy ground and on sandstone rocks; 6.

DAVALLIA, Sm.

PYXIDATA, Cav. Growing in crevices of sandstone rocks,
Cooyal; 4.

DUBIA, R. Br. General in valleys at Cooyal; 5.

ADIANTUM. Tour.

AETHIOPICUM, Linn. Generally distributed but not plentiful; 9. AFFINE, Willd. Cooyal; very rare; 3. HISPIDULUM, Sw. Cooyal; rare; 4.

CHEILANTHES, Sw.

DISTANS, A. Br. Everywhere; common; 15.

TENUIFOLIA, Sw. Common everywhere, but most luxuriant on a hill near Beaudesert; 10.

PTERIS, Linn.

FALCATA, R. Br. Beaudesert Hills, Mullamuddy, Cooyal; 5.
ARGUTA, Ait. At Springfield in old diggers'-holes and wells,
at Cooyal and Mullamuddy, in crevices of rocks; 5.

AQUILINA, Linn. Mullamuddy, Warrable Hills, Reedy Creek, Cooyal; 9.

INCISA, Thunb. Cooyal; 6.

COMANS, G. Forst., and var. Endlicheriana. Cooyal only; 5.

LOMARIA, Willd.

DISCOLOR, Willd. Cooyal; 6.

CAPENSIS, Willd. Cooyal; 6.

BLECHNUM, Linn.

CARTILAGINEUM, Sw. Cooyal; 4. LÆVIGATUM, Cav. Cooyal; 1.

WOODWARDIA, Sm.

ASPERA, Mett. Cooyal; 4.

CAUDATA, Cav. Mullamuddy and Goree; 24.

ASPLENIUM, Linn.

FLABELLIFOLIUM, Cav. Everywhere; 9.

POLYPODIUM, Tour.

SERPENS, G. Forst. Cooyal on sandstone rocks, and Mulla muddy; 4.

PUNCTATUM, Thunb. Cooyal—"The Drip;" rare; 6.

GRAMMITIS, Sw.

RUTIFOLIA, R. Br. Everywhere; common; 9.

LEPTOPHYLLA, Sw. Beaudesert Hills and Biraganbil, in shady spots; 26.

PLATYCERIUM, Desv.

ALCICORNE, Desv. I was rather surprised to find a splendid clump of this plant growing on a large sandstone rock at Cooyal; since I first saw it, it has been all removed for gardens, etc., so that I suppose it is now extinct in the district; 3.

Comparing the above list with Dr. Woolls's "Plants Indigenous to the Neighbourhood of Sydney," it will be seen that in the County of Cumberland the numbers stand as follows (leaving out *Characeæ* which are not included in my list):—

	ORDERS	GENERA	SPECIES
DICOTYLEDONS	83	327	804
Monocotyledons	21	137	334
ACOTYLEDONS	3	29	70
Totals	107	493	1,208

while in Mudgee there are only :-

	ORDERS	GENERA	SPECIES
DICOTYLEDONS	63	196	401
Monocotyledons	14	79	164
ACOTYLEDONS	2	17	31
Totals	79	292	596

The following 28 Orders occur in Cumberland, but not in Mudgee:—Nymphacee, Magnoliacee, Anonacee, Monimiaceee, Menispermee, Tremandree, Meliacee, Tiliacee, Vinifere, Celastrinee, Ficoidee, Saxifragee, Passifloree, Cucurbitacee, Loganiacee, Sapotacee, Ebenacee, Jasminee, Apocynee, Asclepiadee, Lentibularinee, Acanthacee, Philydree, Xyridee, Palme, Aroidee, Eriocaulee, and Lycopodinee.

There are only two Orders found in Mudgee which do not extend to Cumberland, viz., Nyctagineæ and Zygophylleæ.

Cumberland has 209 Genera not found in Mudgee, while Mudgee has but 24 not found in Cumberland, as follows:—Cheiranthera, Tribulus, Sagina, Trichinium, Euxolus, Boerhaavia, Psoralea, Ceratophyllum, Colletia, Daucus, Crantzia, Gnaphaloides, Minuria, Ammobium, Angianthus, Centaurea, Crepis, Leewenhoekia, Spartothamnus, Deyeuxia, Sorghum, Erianthus, Alopecurus, and Osmunda, having in all 28 species.

In the following leading Orders the numbers of Mudgee and Cumberland species are as indicated:—

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	MUDGEE	CUMBERLAND
Leguminosæ	67	113
Orchideæ	59	7.7
Compositæ	54	65
Gramineæ	38	73
FILICES	29	58
Myrtaceæ	28	80
LILIACEÆ	23	28
Cyperaceæ	23	83
Epacrideæ	17	38
Proteaceæ	16	51
SCROPHULARINEÆ	11	9

The last is, I believe, the only order in this district with more species than in Sydney.

Among the orders not mentioned above, the following are more strongly represented in Cumberland in the proportions indicated.

RUTACEÆ	• • •		 	32	to	5
Labiatæ			 •••	24	to	9
EUPHORBIA	CEÆ	• • •	 	21	to	9
RHAMNACE	Æ		 	11	to	3
STERCULIA	CEÆ	•••	 •••	10	to	1
LAURACEÆ			 	7	to	1

The following species are extremely local in their occurrence here:—Pittosporum undulatum, Acacia amæna, Eucalyptus globulus, Sambucus xanthocarpa, Solanum stelligerum, S. campanulatum, Nicotiana suaveolens, Woodwardia caudata at Mullamuddy; Pittosporum phillyroides, Geijera salicifolia, and Prostanthera linearis at Two Mile Flat; Acacia lunata, Corysanthes Hamiltonii, Pterostylis striata and Caladenia arenaria, in the Beaudesert Hills; Baeckia Cunninghamii and Pterostylis clavigera at Biraganbil; Dodonæa lobulata, Exocarpus strictus, and Grevillea floribunda at Cullenbone; and Acacia triptera and Melaleuca nodosa at Reedy Creek. Cooyal has about 92 species not found elsewhere in the district.

Doubtless there are many more species both at Cooyal and all over the district which I have not succeeded in collecting, but if I should meet with such I will include them in a supplementary paper at some future time.

If any member of the Linnean Society would compile a list of the indigenous plants round Wellington and Dubbo, it would be very interesting to compare with the above, and would undoubtedly be of great service in making out the geographical range of Australian plants. More would be learned from a comparison of two local floras not far removed, than in the comparison of two with such a wide gap between them as those of Cumberland and Mudgee.